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NEW GNATEATERS AND ANTBIRDS FROM TROPICAL AMERICA, WITH A REVISION OF THE GENUS MYRMECIZA AND ITS ALLIES.

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A critical study of the Gnateaters (Family Conopophagidæ) and Antbirds (Family Formicariidæ) in the collection of the Carnegie Museum has now been completed, and among other things of interest has revealed the existence of a surprisingly large number of apparently undescribed species and races among the birds belonging to these groups. The collection of Formicariidæ handled is especially fine, being rich in material from French Guiana and the Amazon Valley, which appears to be one of the centers of distribution for this Family. It consists of no less than 9098 specimens, representing 221 species and 124 additional subspecies, belonging to 53 genera. With such abundant material in the way of well prepared and uniformly made up skins from different regions, it has been possible for the first time to compare series for geographic variation. The results of this study show clearly that numerous forms which heretofore have been supposed to be constant over an extensive area are really divisible into two or more races. Supposed gaps in the ranges of certain genera and superspecific groups have been filled by the discovery of new representative forms. Almost without exception the ranges of all such forms in the Amazon Valley appear to be sharply limited by the great rivers of this region—the Rio Negro, the Tocantins, the Xingú, the Tapajóz, the Madeira, the Purús, and the Amazon itself. It is seldom that we find the same form occurring on both banks of this river, even as far up as the Peruvian boundary. Differentiation seems to have been induced mainly by isolation, to the effects of which birds of such sedentary habits as the Ant-

birds would naturally be peculiarly susceptible. On this basis the increased tendency to differentiate south of the Amazon is understandable, since this area is cut up by several large streams, while on the north the Rio Negro is virtually the only river of any size to offer a barrier to dispersal. The whole question is exceedingly interesting to the student of distribution, but can only be barely alluded to here.

The latest treatment of the birds of these difficult groups is that by Dr. C. E. Hellmayr (Field Museum Zoological Series, III, iii, 1924, pp. 369). This work, backed up by the author's study of the type-specimens in Europe and America, and by his critical review of the literature, is an invaluable contribution to the subject, and has been taken as the basis for the present paper. With much more ample material in many cases than was available to Dr. Hellmayr, and with a different conception of the subspecies, our conclusions naturally differ in certain respects. In the case of the genus *Myrmeciza* and its allies an entirely new arrangement has been suggested, with the new forms fitted in where they seem to belong.

The present paper is the fourteenth of the series to appear in these Proceedings, and follows the others in the use of millimeters in measurements, and of Mr. Ridgway's "Color Standards and Color Nomenclature" in the naming of the colors. Acknowledgments are due the respective authorities of the American Museum of Natural History, the Museum of Comparative Zoology, the Academy of Natural Sciences of Philadelphia, the U. S. National Museum, and the Field Museum of Natural History for the loan of specimens used in this connection. To Dr. C. E. Hellmayr of the institution last named the writer is under further obligations for reporting on certain specimens sent to him for that purpose. Dr. Percy R. Lowe of the British Museum has courteously supplied certain detailed information on types in the collection under his care, for which thanks are due.

Conopophaga aurita australis, subsp. nov.

Similar to *Conopophaga aurita occidentalis* Chubb, but upper parts averaging more rufescent, and under parts more decidedly buffy, the black of the throat in the male more extended, reaching the upper breast.

Our extensive series of *Conopophaga aurita* from the Rio Purús and the south bank of the Rio Solimoës differ decidedly from birds of the same

species coming from localities on the north bank, which are clearly referable to *C. occidentalis* Chubb. The characters on which the latter is based are carried a step further in the present form, and by just that much tend toward those of the lower Amazonian *C. snethlageæ*, without, however, showing actual intergradation. The buffy wash on the under parts is more marked in both sexes of *australis*, and the greater posterior extent of the black throat-area in the male is also a marked feature, resulting in a narrowing of the rufous brown of the breast, which as a rule is a little paler than in *occidentalis*. Compared in series, *australis* averages more rufescent, less olivaceous, above. The difference in size between the two is inconsiderable.

Type, No. 91,917, Collection Carnegie Museum, adult male; Nova Olinda, Rio Purús, Brazil, July 14, 1922; Samuel M. Klages.

Corythopis torquata subtorquata, subsp. nov.

Similar to *Corythopis torquata torquata* von Tschudi (as represented by three specimens from Peru in the collection of the American Museum of Natural History), but decidedly smaller; upper parts, wings, etc., much brighter (Dresden brown instead of sepia); and under parts less heavily streaked, the streaks brownish rather than grayish, and the crissum washed lightly with the same color. Male: wing, 67; tail, 50; bill, 14.5; tarsus, 25.5. Female: wing, 65; tail, 47; bill, 14.5; tarsus, 24.

Reluctant as I am to add another name to the literature of this genus, there seems no help for it in the present case, as the pair of birds before me evidently represent a well-marked form, distinguishable at a glance from both *C. torquata torquata* and *C. torquata sarayacuensis*.

Type, No. 50,859, Collection Carnegie Museum, adult female; Rio Yapacani, Bolivia, September 20, 1914; José Steinbach.

Thamnophilus multistriatus brachyurus, subsp. nov.

Similar to *Thamnophilus multistriatus multistriatus* Lafresnaye of the Eastern Andes of Colombia, but tail markedly shorter; barring of the under parts not quite so heavy in both sexes, giving these parts a lighter appearance; females with a more or less decided collar of black spots (partially concealed) on the nape, which are wanting in the females from the Eastern Andes.

In four males the tail measures respectively 62, 63, 64, 60. In six females it is 61, 61, 60, 61, 63, 63.

Dr. Chapman could find no racial differences in the series he examined (cf. Bulletin American Museum of Natural History, XXXVI, 1917, 368), but with smoothly made up specimens there is no difficulty in distinguishing between examples from the Eastern and Western Andes respectively. The characters above pointed out seem to justify the subspecific segregation of the series according to locality, and since Lafresnaye's name *multistriatus* was presumably based on a "Bogotá" skin, it is the form from the Western Andes that requires naming. Since the distinguishing characters of this race are better marked in the female, I select one of that sex as the type.

Type, No. 67,029, Collection Carnegie Museum, adult female; Caldas, Colombia, June 6, 1918; M. A. Carriker, Jr.

Thamnophilus nigriceps magdalenæ, subsp. nov.

Adult male not certainly distinguishable from the same sex of *Thamnophilus nigriceps nigriceps* Sclater. Adult female with the streaking on the lower parts virtually confined to the throat, and much narrower.

Both Dr. Hellmayr (Field Museum Zoological Series, XIII, iii, 1924, 77) and the writer (Annals Carnegie Museum, XIV, 1922, 314) have already remarked upon the peculiarities of specimens of this species from the interior of Colombia. On a recent visit to the British Museum Dr. Hellmayr took with him a series from our collection for comparison, and now reports that No. 63,855, from the lower Atrato, is exactly like Sclater's type of *nigriceps*. This confirms his suspicion as to the source of the type, which is not from the "Bogotá" region at all; and thus the way is left open to give a name to the form of the Magdalena Valley, on the basis of the characters apparent in our specimens. These characters have been confirmed by additional specimens examined in this connection, in the collections of the Academy of Natural Sciences of Philadelphia and American Museum of Natural History respectively. The other localities represented are El Tambor, (within twenty miles of) Honda, Puerto Berrio, and Malena, Colombia.

Type, No. 70,765, Collection Carnegie Museum, adult female; Mariquita, Tolima, Colombia, October 2, 1918; M. A. Carriker, Jr.

Thamnophilus incertus atriceps, subsp. nov.

Similar to *Thamnophilus incertus incertus* von Pelzeln, but general coloration darker in both sexes.

Specimens of *Thamnophilus incertus* from the east bank of the Rio Tapajóz differ from topotypical skins from Pará in their generally darker coloration, manifest in the male on the crown, which is black, in contrast with the plumbeous of the rest of the upper parts (instead of being almost the same or merely a trifle darker), and in the female by the browner tone of the under parts (as shown in a series of eight specimens). Some of the Pará females, it is true, are virtually as richly colored as the above, but as a series they differ as aforesaid.

This well-marked race is evidently confined to the region east of the Rio Tapajóz, since on the west side of that river it is replaced by *T. punctuliger*, with which, however, it does not appear to intergrade, although they are of course "representative forms." It probably ranges eastward to the Rio Xingú at least, and possibly to the Rio Tocantins, where it would meet true *T. incertus*. Its characters are a step in the direction of *T. polionotus*, from which it differs in its plainer wings, with the white markings restricted to the lesser coverts in the male. The record for Victoria, Rio Xingú, published by Miss Snethlage (Boletim Museu Gœldi, VIII, 1914, 271) doubtless belongs here.

Type, No. 77,597, Collection Carnegie Museum, adult male; Miriituba, Rio Tapajóz, Brazil, March 24, 1920; Samuel M. Klages.

Thamnophilus murinus cayennensis, subsp. nov.

Similar to *Thamnophilus murinus murinus* Sclater and Salvin, and adult female not certainly distinguishable. Adult male with the wings externally decidedly brighter, more rufescent, than in the typical race.

Comparison of a good series of this species from French Guiana with another from Obidos and Manacapurú, assumed to be typical, shows that the former belong to a well-marked race which for some reason—probably paucity of material—has hitherto escaped discrimination and description. Its characters are shown only in the male sex, and run true in twenty males from French Guiana as compared with thirteen from Manacapurú and eleven from Obidos, and I have no hesitation in attributing them to geographic variation. Females from the two regions, however, are practically the same. This may account in part for the wording of Sclater's description of that sex in the Catalogue of the Birds in the British Museum, XV, 1890, 195.

Type, No. 65,088, Collection Carnegie Museum, adult male; Pied Saut, French Guiana, December 1, 1917; Samuel M. Klages.

Thamnophilus murinus canipennis, subsp. nov.

Similar to *Thamnophilus murinus murinus* Sclater and Salvin, but adult male with the wings externally grayish, like the rest of the upper parts.

In this race, which differs from true *murinus* in exactly an opposite direction from the Guiana form, the wings of the male are gray, with little or no brownish shade, and therefore not in contrast with the rest of the upper parts. Immature birds, however, have more or less brownish wings, thus betraying the derivation of the present race from the one which inhabits the coast region of Guiana. It may have been that the individuals from the upper Amazon examined by Sclater and Salvin when they described *murinus* were young birds, since they remarked no differences between these and others from more eastern localities. On the other hand, Sclater's later description (Catalogue of the Birds in the British Museum, XV, 1890, 195) would lead one to believe that he had a bird of this type in hand, since he does not say anything about the wings being brownish.

Type, No. 96,991, Collection Carnegie Museum, adult male; Tonantins, Rio Solimoës, Brazil, June 28, 1923; Samuel M. Klages.

Thamnophilus punctatus saturatus, subsp. nov.

Similar in general to *Thamnophilus punctatus punctatus* (Shaw) of Guiana, Venezuela, etc., but male with more black on the upper parts, and the white edgings of the scapulars wider and more conspicuous; female with the upper parts strongly rufescent.

A strongly marked race, which heretofore has been confused with true *punctatus,* owing no doubt to lack of material. Dr. Hellmayr (Field Museum Zoological Series, XIII, iii, 1924, 93, note), in speaking of a single female from Utiarity, northern Matto Grosso, has correctly indicated

its characters as shown by this sex, but no other writer seems to have recognized them, although Miss Snethlage, in her Catalogue of Amazonian birds (Boletim Museu Gœldi, VIII, 1914, 271) records specimens which evidently must belong here. While males are in series darker above than those of *punctatus*, owing to an increase in the amount of black mottling, they are by this very token so close to those of *T. amazonicus* as to be scarcely distinguishable—and doubtless not invariably at that! Where the ranges of these two forms overlap, as on the Rio Tapajóz, the placing of individual specimens with one species or the other must often be guesswork. Indeed, I can find no *constant* characters to distinguish them, when males alone are considered, but in general *saturatus* is slightly paler gray below than *amazonicus* (about deep gull gray as compared to slate gray), and has less black on the back; the white spots on the upper tail-coverts average larger also. Females, on the other hand, are of course entirely different from those of *amazonicus*, and may readily be told from those of true *punctatus* as well by their strongly rufescent upper parts, which are thus not in sharp contrast with the pileum. Since the characters of this race are most highly developed in the female, I choose a bird of that sex as the type.

This race represents *Thamnophilus punctatus* south of the Amazon. It clearly has nothing to do with *T. ambiguus* Swainson, its tail-markings being those of *punctatus*. I have not seen *Thamnophilus punctatus sclateri* Stolzmann (Annalibus Zoologicis Musei Polonici Historiæ Naturalis, V, 1926, 215), which seems to have the same dark-colored back as the new form, but otherwise the description does not fit, and on geographical grounds it is scarcely likely that the two are the same.

Type, No. 76,125, Collection Carnegie Museum, adult female; Villa Braga, Rio Tapajóz, Brazil, January 7, 1920; Samuel M. Klages.

Thamnophilus amazonicus paraensis, subsp. nov.

Similar to *Thamnophilus amazonicus amazonicus* Sclater, and male not certainly distinguishable. Female duller and paler in general coloration, with less black mottling on the interscapulium, and with the tail distinctly brownish.

The name *amazonicus* was based by Sclater primarily on specimens collected by Bates on the upper Amazon, which is interpreted by Dr. Hellmayr to mean the Rio Javarri. We have none from there, but probably our series from the Rio Purús (Hyutanahan) are the same. A series from the Rio Tapajóz and Caviana (opposite Manacapurú) agree with these, and with the description and plate of *amazonicus*. But the Benevides birds are readily separable from those from farther up the Amazon by the characters of the females, above specified. Males exhibit no differences that I can find. French Guiana specimens agree best with those from the Pará district of Brazil, but may eventually prove separable. Since its characters are obvious only in the female, I select one of that sex as the type.

Type, No. 69,260, Collection Carnegie Museum, adult female; Benevides, Pará, Brazil, September 6, 1918; Samuel M. Klages.

Pygiptila stellaris purusiana, subsp. nov.

Similar to *Pygiptila stellaris stellaris* (Spix) of the Amazon Valley, etc., and male not certainly distinguishable, but female averaging more earthy brown above, with less bluish gray shade.

While not absolutely constant, the difference here remarked is certainly not due to season or age (the series available being sufficient to eliminate both), and seems to justify the division of the species on this basis. A series from the Rio Caura, Venezuela (in the Carnegie Museum and the American Museum of Natural History), agree with birds from the Rio Tapajóz and the upper Amazon. Consequently I see no reason either for recognizing *maculipennis* or for separating Caura examples as a distinct race. But those from the Rio Purús certainly constitute a recognizable subspecies.

Type, No. 87,327, Collection Carnegie Museum, adult female; Hyutanahan, Rio Purús, Brazil, January 16, 1922; Samuel M. Klages.

Myrmotherula klagesi, sp. nov.

Male: above black, streaked with white, but without any white interscapular blotch; wings black, with narrow white edgings, the middle and lesser coverts with white terminal edgings or spots, forming two bars across the wing; tail black, with a small white tip to each feather, the inner rectrices with narrow white edgings externally; under parts white, streaked with black, obsoletely on the abdomen medially; under wing-coverts pure white; inner margins of remiges white. Female: above black, streaked with buffy white; wings and tail as in the male; under parts buffy; the breast and sides with blackish elongated spots or streaks, obsolete on the throat and middle of the abdomen; under wing-coverts white.

The relationships of this new species are with *M. surinamensis multostriata* on the one hand and with *M. cherriei* on the other; in fact, it may be considered a connecting link between these two forms. The male is scarcely distinguishable from that of *multostriata* except by its lack of an interscapular patch and by its slightly longer tail. The striping on the under parts is virtually the same in both forms, showing no tendency to reduction, as in *M. longicauda*, or to increased prominence, as in *M. cherriei*. The female, on the other hand, is entirely different from that of the *surinamensis* group of conspecies, the color-pattern above being the same as that of the male, but the white replaced by buffy, except on the wings and tail; the under parts are more as in the same sex of *multostriata*, but the markings incline more to spots than to streaks. In the female of *M. cherriei* only the crown and hindneck are buffy-streaked, and the streaking below is more distinct (true in both sexes). The mandible is pale in both sexes.

It is curious that this species has not been met with at Santarem by any collectors previous to Mr. Klages, in whose honor it is named. Farther up the Rio Tapajóz it is replaced by *M. multostriata*. Six of our series of fourteen skins come from the islands in the Amazon opposite Obidos.

Ten males average as follows: wing, 48.5; tail, 27.5; bill, 13; tarsus, 15. Four females: wing, 47; tail, 28; bill, 12.5; tarsus, 15.

Type, No. 78,457, Collection Carnegie Museum, adult male; Santarem, Brazil, October 2, 1920; Samuel M. Klages.

Myrmotherula leucophthalma sordida, subsp. nov.

Similar to *Myrmotherula leucophthalma leucophthalma* (von Pelzeln) (as represented by a series from Hyutanahan, Rio Purús), but male with gray of under parts slightly deeper, and posterior under parts slightly darker brown; upper parts more grayish olive, less rufescent. Female with entire under parts much deeper in tone, the throat ochraceous buff (between ochraceous buff and ochraceous orange), paling to clay-color posteriorly.

With a good series of what is assumed to correctly represent true *leucophthalma* available for comparison, it is obvious that the birds from the Rio Tapajóz represent an easily recognizable race. Dr. Hellmayr (Novitates Zoologicæ, XVII, 1910, 347) had but one male from the island of Marajó, and although he noticed several small differences, he thought that these should be confirmed by additional material. Males may best be told by the less rufescent color of the upper parts, giving the impression of greater contrast between the back and the tail, while females, on the other hand, are most readily distinguished from those of the typical race by the strongly ochraceous tone (most pronounced on the throat) of the entire under parts. For this reason I choose one of this sex as the type.

Miss Snethlage records this bird from several localities in lower Amazonia, but as she had but one male of supposedly true *leucophthalma* from the Rio Purús it is no wonder that she failed to discriminate the former as new.

Type, No. 74,770, Collection Carnegie Museum, adult female; Colonia do Mojuy, Santarem, Brazil, November 3, 1919; Samuel M. Klages.

Myrmotherula fulviventris costaricensis, subsp. nov.

Similar to *Myrmotherula fulviventris fulviventris* Lawrence (type-locality Panama), but generally darker and less rufescent; adult male slightly darker and duller below and more pronouncedly so above (more olivaceous, less rufescent), the wings externally more brownish, less rufescent (close to brownish olive). Female also darker, more olivaceous, less rufescent, above, and decidedly paler buffy, less ochraceous, below, the wings externally differing as in the male.

Both Dr. Chapman (Bulletin American Museum of Natural History, XXXVI, 1917, 374; LV, 1926, 391) and Dr. Hellmayr (Field Museum Zoological Series, XIII, iii, 1924, 144) now say that the *Myrmotherula viduata* of Dr. Hartert (described from northwestern Ecuador) is a pure synonym of *Myrmotherula fulviventris* Lawrence (described from Panama), but the latter author admits that if there are two forms of the species, it would be the northern one that would require a name. According to his view, however, the characters of the northern bird are too inconstant to justify such a course. I do not find it so with our material. The Costa Rican birds differ at a glance from a series from western Colombia

in their darker coloration, obvious in both sexes. Accepting the statements of other authorities as to the identity of topotypical Panama skins with those from western Colombia, it becomes necessary to separate the Costa Rican series under some other name. Dr. Hartert, in describing *viduata*, noticed these same differences, but supposed that specimens from Costa Rica were the same as those from Panama, which is evidently not the case. With the specimens before me I believe the formal separation of the present series is fully indicated.

Type, No. 28,025, Collection Carnegie Museum, adult male; El Hogar, Costa Rica, January 12, 1907; M. A. Carriker, Jr.

Myrmotherula hæmatonota phæonota, subsp. nov.

Similar to *Myrmotherula hæmatonota hæmatonota* (Sclater) from the north bank of the Amazon, but altogether paler. Male: pileum and hindneck light brownish olive (instead of brownish sepia); back Sanford's brown (instead of chestnut); wings externally Dresden brown (instead of sepia); wing-coverts similar, with a large subterminal black area and broad tips rich clay-color, forming two bands across the wing; tail Prout's brown (instead of mummy brown); throat with white spots averaging larger; breast, etc., light neutral gray (instead of neutral gray); posterior under parts pale tawny olive (instead of light brownish olive). Female: the upper parts, wings, and tail differ much as in the male, but not in quite so pronounced a degree; the under parts, however, are decidedly brighter and more uniform buffy (between cinnamon buff and antimony yellow).

If this strongly marked form has hitherto remained unrecognized it can only be because specimens from the Rio Tapajóz have never been compared directly with those from near the type-locality, or from north of the Amazon. The differences between the two series are certainly striking, and would perhaps justify retaining them as two specific types. The difference in the wing-markings is conspicuous enough to suggest this. Miss Snethlage appears to be the only authority who has handled any specimens from this region, and she naturally felt justified in following Dr. Hellmayr's lead in calling them all *hæmatonota*.

Almost certainly, judging from the context, the specimens from Calama and Borba, on the east bank of the Rio Madeira, to which Dr. Hellmayr refers (Novitates Zoologicæ, XIV, 1907, 384; XVII, 1910, 349) must belong to the present race, while those from the opposite bank are referable to *M. amazonica* von Ihering, which is a species quite distinct from *M. hæmatonota*, as shown by the ample material in the collection of the Carnegie Museum.

Type, No. 75,173, Collection Carnegie Museum, adult male; Villa Braga, Rio Tapajóz, Brazil, November 28, 1919; Samuel M. Klages.

Myrmotherula ochrogyna, sp. nov.

Adult male similar to that of *Myrmotherula paraensis* (Todd), but gray of under parts darker, neutral gray to deep gull gray, and black of throat and breast averaging more extended. Adult female similar to that of

paraensis in color of under parts, but upper parts entirely different, being dull antique brown, the wings and tail dusky brown, externally much like the back.

Adult male: above, including wings and tail externally, dark neutral gray, inclining to slate-color; auriculars with traces of white streaking; wing-coverts black, with white tips; scapulars extensively white; rectrices with slight white tips; remiges margined internally with whitish; below, throat and breast black; rest of under parts neutral gray, inclining to deep gull gray; bill and feet brownish black (in skin).

Adult female: above dull antique brown, almost uniform; wing-coverts like the back; wings externally Dresden brown; tail raw umber, with external margins and slight tips of dull antique brown; sides of head between yellow ocher and buckthorn brown; under parts strongly buffy, more or less tinged with ochraceous buff; under wing-coverts similar; bill brown above, horn-color below; feet dull grayish brown (in skin).

So far as our material goes this species is known only from one point on the west bank of the Rio Tapajóz, being replaced on the east bank by *M. paraensis*, and west of the Rio Madeira by still another form. After comparing females of the three forms with each other I am still unwilling to follow Dr. Hellmayr in making *M. paraensis* and the present form conspecific with *M. longipennis*, although their representative relationship may be admitted. Since the male so closely resembles the same sex of *longipennis*, it will be better to select a female example as the type of the new form.

Type, No. 76,391, Collection Carnegie Museum, adult female; Villa Braga, Rio Tapajóz, Brazil, January 19, 1920; Samuel M. Klages.

Myrmotherula iheringi heteroptera, subsp. nov.

Males of this race are precisely like those of the typical form, but the females differ in having the upper parts, wings, etc., less purely gray, more olivaceous tinged, and in particular by having the spots on the wing-coverts buffy instead of white. This does not appear to be a sign of immaturity, in our specimen at least. Dr. Hellmayr (Field Museum Zoological Series, XIII, iii, 1924, 158, note) describes a female of this type from the Rio Roosevelt in the collection of the American Museum of Natural History. Very probably his record of *M. garbei* (Novitates Zoologicæ, XIV, 1907, 383) from the Rio Madeira belongs here also; it was based on a male, however, and indeterminable. Our series of five specimens are all from the Rio Purús.

Type, No. 87,591, Collection Carnegie Museum, adult female; Hyutanahan, Rio Purús, Brazil, January 28, 1922; Samuel M. Klages.

Myrmotherula menetriesii omissa, subsp. nov.

Male similar to that of *Myrmotherula menetriesii cinereiventris* Sclater and Salvin in being generally without a decided black throat-patch, but female different, being much more ochraceous below—yellow ocher to (almost) raw sienna.

In his latest review of this group Dr. Hellmayr (Field Museum Zoological Series, XIII, iii, 1924, 161–4) ranges Pará records under *cinereiventris*, but those from Villa Braga on the Rio Tapajóz he places provisionally under *berlepschi*, calling attention to the peculiarities of four females from that locality (apparently he had seen no males), and intimating that they might represent an undescribed race. With more ample material now before me than was available to him, I now find this to be the case. But I can see no especial differences between the females from the Pará region (three specimens) and the series from both banks of the Rio Tapajóz, both being equally richly colored below (the upper parts varying somewhat, but not geographically). Dr. Hellmayr speaks of the rich coloration beneath of some of the Pará females (l.c., p. 162, note). The present form differs from *berlepschi* (not seen by me) in the usual lack of any well-defined gular black patch in the male, and the rather paler coloration of the under parts in the female (*fide* Hellmayr), *berlepschi* being still more richly colored below in this sex. The black throat-patch is fairly well marked, although small, in but one male from Villa Braga (No. 75,766) and more or less indicated in a number of others from that locality, which may be regarded as variants or intergrades towards *berlepschi*. I choose a type, therefore, from among the purer bred Benevides birds, and from the females.

Type, No. 69,230, Collection Carnegie Museum, adult female; Benevides, Pará, Brazil, September 4, 1918; Samuel M. Klages.

Herpsilochmus stictocephalus, sp. nov.

Male: above gray (dark gull gray), with some black and white mottling on the back (more or less concealed); wings black, the remiges with white outer edgings (widest on the tertiaries) and the wing-coverts with conspicuous white terminal spots; tail black, all the feathers with broad white tips except the central pair, which have small white terminal spots and more or less white spotting or edging on their inner webs; pileum and nape black, the forehead with some small white spots or streaks; broad superciliaries white; transocular streak black; auricular and suborbital region mottled black and grayish white; under parts white, shaded with pale gray; under wing-coverts white.

Female: above gray, shaded with olive gray, and mottled with black and white (more or less concealed), as in the male, but rather more brownish, and the edgings of the remiges more grayish white; tail as in the male; pileum and nape black, with white spots, less conspicuous laterally; superciliaries grayish white; transocular stripe black; sides of head mottled grayish white; under parts white, the breast strongly buffy, and the flanks more or less shaded with light olive gray; under wing-coverts white.

The form described by the present writer as *Herpsilochmus sticturus nigrescens* (Proceedings Biological Society of Washington, XXVIII, 1915, 80) was based on a pair of birds from the Rio Caura, Venezuela. There were then available for comparison two male examples from Rio Yuruan, Venezuela (near the British Guiana frontier), which had been examined by Dr. Hellmayr and pronounced typical *H. sticturus*. When the series

of *Herpsilochmus* from French Guiana came to be studied, it was found that the females were of two distinct types: those with rufous stripes on the pileum and a barely perceptible tinge of buffy on the lower parts; and those with a white-spotted pileum and strongly buffy under parts. The latter were slightly larger as well, the wing running 47–50 mm., and the tail 35–38 mm., while the corresponding figures for the former class were 45–47 mm. and 30–36 mm. It then developed that the males also fell into two classes, the differences, however, being less obvious. In the larger form the wing of the male measures 47–50 mm., and the tail 34–40 mm., as against 45–47 mm. and 31.5–36 mm. for the other. In the smaller form the general coloration is darker, especially so above, and the pileum is plain black, without any sign of white spotting or streaking on the forehead, which is always more or less in evidence in the larger bird.

Since these two forms occur together (in French Guiana at least) they must be distinct species. The smaller, darker bird from French Guiana is absolutely the same as the type and topotype of *nigrescens* from the Caura, while the two males from Rio Yuruan belong to the larger and lighter-colored species. The question at once arose as to which of the two was the real *Herpsilochmus sticturus* (described from British Guiana, an intermediate locality with reference to our specimens). The description seemed to point to the smaller species, since there was no mention made of any white spotting on the forehead in the male, while the female was said to have the pileum marked with rufescent. In order to put the matter beyond question, however, Dr. Percy R. Lowe of the British Museum was asked to re-examine the type-series with this point in view, and his notes, recently received, suffice to confirm my suspicions that *nigrescens* is a pure synonym of *sticturus*. For the larger bird, represented in our collection by two specimens from Venezuela and thirty-four from French Guiana, a new name is therefore required. The name chosen refers mainly to the characters of the female, from which sex the type is selected. An immature male (No. 65,164), with some greenish remiges and a white-spotted pileum, absolutely ties up the males of this series with the females described above.

Type, No. 62,172, Collection Carnegie Museum, adult female; Tamanoir, French Guiana, June 19, 1917; Samuel M. Klages.

Terenura humeralis transfluvialis, subsp. nov.

Adult male similar to that of *Terenura humeralis humeralis* Sclater and Salvin from eastern Ecuador and Peru, but lesser wing-coverts and lower back rich Mars orange, instead of dull chestnut, and wing-bands entirely yellow. Adult female with the throat dull whitish, with no buffy shade, and the rest of the under parts dull reed yellow, almost as in the male.

This form is based on a pair of birds from Hyutanahan, Rio Purús, Brazil, which differ from the description and figure of *T. humeralis* in the respects above pointed out. A single male from São Paulo de Olivença appears to vary in the direction of the typical race. Dr. Hellmayr, who has examined these specimens at my request (and has also seen the types

of *humeralis* in the British Museum), believes the form they represent to be new. In any event the present records materially extend the range of this species, not known heretofore to run beyond eastern Peru and Ecuador.

Type, No. 87,818, Collection Carnegie Museum, adult female; Hyutanahan, Rio Purús, Brazil, February 7, 1922; Samuel M. Klages.

Microbates collaris perlatus, subsp. nov.

Similar to *Microbates collaris collaris* (von Pelzeln) of the middle Amazon, French Guiana, etc., but black pectoral collar wider, and posterior under parts sensibly darker.

Eleven specimens from Tonantins, Rio Solimoës, Brazil, when compared with twenty-three from French Guiana and sixteen from Manacapurú, Brazil (the latter essentially topotypical) agree in having the breast-band wider and the sides and flanks with more grayish shading, giving a darker appearance to the under parts by comparison as the two series lie side by side. The flanks and crissum, too, are rather darker brown.

Although this species is known from Amazonian Colombia, no adequate series have heretofore been available, either from this section or from the type-locality, which will readily account for this race having been overlooked thus far.

Type, No. 97,201, Collection Carnegie Museum, adult male; Tonantins, Rio Solimoës, Brazil, July 11, 1923; Samuel M. Klages.

Cercomacra tyrannina vicina, subsp. nov.

Similar to *Cercomacra tyrannina tyrannina* (Sclater), and female not distinguishable. Male paler below, the flanks always heavily shaded with light brownish olive, and the wings externally and tail decidedly brownish olive.

This is the series which Dr. Hellmayr after examination says "are not different either" (from typical *tyrannina*). I can not agree with this determination. It is scarcely likely that all of the five males (in fresh plumage) are in supposedly immature dress, and even if they were they do not agree with the duller-colored males of the El Tambor (Colombia) series, the olivaceous wash on the wings, tail, and flanks being considerably more intense and more uniform. The plate accompanying the original description of *tyrannina* (Proceedings Zoological Society of London, 1855, pl. 98) shows a bird with decidedly grayish wings, which in any event can not be the form with which we are now dealing. Moreover, three adult males from Buena Vista, Colombia, in the collection of the American Museum of Natural History, although presumably topotypical, are clearly intermediate between the form here characterized and a series from El Tambor, Colombia, and could be referred to one as easily as to the other. But if we take *tyrannina* from the original description and figure the present form seems entitled to a name. The olive brownish coloration of certain parts suggests that observed in *læta*, but is much more intense, besides which, the females are different, agreeing with those of *tyrannina*.

We have eight specimens from Palmar, Boyaca, Colombia (near the foot of the northern extremity of the Eastern Andes) and four others (not quite typical) from Azulita, Venezuela, in the humid forest region on the opposite side of the Venezuelan Andes.

Type, No. 60,446, Collection Carnegie Museum, adult male; Palmar, Boyaca, Colombia, April 19, 1917; M. A. Carriker, Jr.

Cercomacra nigricans atratus, subsp. nov.

Male similar to the same sex of *Cercomacra nigricans nigricans* Sclater, but larger. Female uniformly darker in general coloration than the female of *nigricans*.

Dr. Hellmayr acknowledges only one form of this species in his recent work, and still more recently Dr. Chapman (Bulletin American Museum of Natural History, LV, 1926, 400) reiterates his belief that there is no racial variation. But there can be no question whatever that our series from western Colombia (twenty-four specimens) are not the same as the birds from the Santa Marta region and Magdalena Valley, listed as *nigricans*. They are constantly larger, and the females differ also in coloration, being uniformly darker. The upper parts, including the wings and tail, are more blackish, and the black of the under parts is more extended posteriorly, while the gray of the flanks is more sooty, producing a decidedly darker effect as the two series lie side by side. Two females (so marked) from Yumbo (Nos. 70,046–7) have the plumage below irregularly streaked on the throat and squamated elsewhere with white, which is probably an individual variation, but otherwise they are as dark-colored as the others.

Compared with birds from western Ecuador (*Cercomacra maculosa* Sclater) the present form differs in the female sex in being much blacker below. Ecuador females are all conspicuously mottled with white and gray (blackish in only one specimen, which, however, is much grayer even than our No. 70,046). They suggest *Sclateria nævia* very strongly indeed, and are even more mottled than young birds of true *nigricans*. There are thus three valid races of this species, of which the one from western Colombia remains to be named.

Type, No. 70,140, Collection Carnegie Museum, adult female; Yumbo, Valle, Colombia, August 14, 1918; M. A. Carriker, Jr. (Wing, 67; tail 67.)

Myrmoborus stictopterus, sp. nov.

Male not certainly distinguishable from the same sex of *Myrmoborus lugubris* (Cabanis) except for its smaller size (wing, 67; tail, 43). Female: above sepia brown, becoming more rufescent on the pileum, and passing into antique brown on the forehead, this color continued backward as a superciliary stripe, which is paler and more buffy behind the eyes; lores and sides of the head and neck black; wing-coverts like the back, but more rufescent, with conspicuous triangular terminal spots of buffy white; remiges externally cinnamon brown; tail warm sepia; under parts white, the flanks and crissum washed with brownish buffy; under wing-coverts white.

This species differs from *Myrmoborus femininus* (Hellmayr), in the female sex, by the whiter under parts, the much paler and therefore more conspicuous spotting of the wing-coverts, the much less rufescent back, and in particular by the different head-pattern, the forehead in *femininus* being concolor with the crown, while the superciliaries are black like the sides of the head. The single male example is not quite adult, but shows paler tipping to the wing-coverts which is indicated as strongly in some examples of *M. lugubris*, but not at all in *M. femininus*. The female specimen, taken at the same time as the male, seems to be fully adult.

This is probably the form recorded by Dr. Hellmayr (Novitates Zoologicæ, XIV, 1907, 380) from Anavehana, Rio Negro.

Type, No. 99,135, Collection Carnegie Museum, adult female; Marrecao Island, Manacapurú, Brazil, March 8, 1924; Samuel M. Klages.

Myrmoborus ardesiacus, sp. nov.

Adult male: above, including wings and tail externally, slate-color, the forehead and the sides of the crown usually slightly more bluish in tone, the back with a large concealed white interscapular patch; wing-coverts black, with distinct but narrow white tips; outermost primary, alula, and primary-coverts margined externally with white; sides of head (including narrow superciliaries) and entire throat black; rest of under parts deep gray (dark gull gray); under wing-coverts mixed gray and white.

Adult female: above dull brown (sepia to Prout's brown), the back with a concealed white interscapular patch, the forehead and the sides of the crown indistinctly paler; wings and tail externally like the back; wing-coverts black and brown, with distinct but narrow buffy tips; outermost primary, alula, and primary-coverts margined externally with white; sides of head (including narrow superciliaries, loral, subocular, and auricular regions) black; throat white, sometimes bounded behind by a row of blackish spots, but often grading directly into the ochraceous buffy shading of the rest of the lower parts, which is heavy and uniform on the flanks and crissum, but pale on the abdomen medially, this part sometimes being nearly white; under wing-coverts mixed brown and white.

This interesting and unexpected new species combines the dark coloration of the male of *M. leucophrys* with the banded wings and white interscapular spot of *M. melanolæma* and *M. myotherinus*. The female more nearly resembles that of *M. melanolæma*, but may at once be told by the pure white instead of buffy outer margins of the feathers along the edge of the wing, and by the darker feet. The description is based on a series of forty-eight specimens, all from the type-locality.

Type, No. 98,556, Collection Carnegie Museum, adult male; Manacapurú, Rio Solimoës, Brazil, October 16, 1923; Samuel M. Klages. (Wing, 61; tail, 38; bill, 17; tarsus, 24.)

Myrmoborus ardesiacus proximus, subsp. nov.

Similar to *Myrmoborus ardesiacus ardesiacus*, and male not certainly distinguishable. Female much more deeply and richly colored below,

the entire under parts, except the throat, being rich ochraceous buff, while the throat also is more or less washed with this color, and the edge of the wing (primary-coverts, alula, and outer primary), which is pure white in the typical race, is more or less shaded with buffy.

In this form, which comes from the south side of the Amazon, opposite Manacapurú, the female has assumed a color which is almost the same as in *M. ochrolæma*, except that the throat, which in that species is concolor with the rest of the under parts, is paler, more whitish. The color below is between the ochraceous buff and yellow ocher of Ridgway, and it is virtually uniform, and not paler and interrupted medially, as in the typical form. The present form differs from *M. elegans* (Colombian specimens) in the male being darker, more slaty gray below, while the female has the white of the throat not bordered posteriorly by a row of blackish spots, and the upper parts not quite so dark.

Type, No. 99,391, Collection Carnegie Museum, adult female; Caviana, Rio Solimoës, Brazil, June 2, 1924; Samuel M. Klages.

A Review of the Genus Myrmeciza and its Allies.

The treatment of the forms included under the generic groups *Sclateria*, *Myrmeciza*, and *Myrmoderus* by Dr. Hellmayr in his late review of the Antbirds is not entirely satisfactory, as admitted by Dr. Hellmayr himself. Having been able to examine most of the included species, I take advantage of this occasion to propose a new arrangement, in the effort to group the several forms more nearly in accordance with what I conceive to be their real affinities, as shown by their structural characters. Although reluctant to increase the number of genera in this Family, I believe it is better to do so than to attempt to keep forms under the same generic heading which have no characters in common to hold them together, so that the genus becomes unsusceptible of definition and therefore meaningless from a systematic standpoint.

Sclateria Oberholser.

Sclateria Oberholser, Proc. Acad. Nat. Sci. Philadelphia, 1899. 200 (new name for *Heterocnemis* Sclater, preoccupied; type, *Holocnemis flammata* Strickland=*Sitta nævia* Gmelin).

This genus is characterized by its long, slender bill (longer than the head), relatively short tail, and by the tendency of the tarsal scutes to become fused and obsolete. It is hereby restricted to include only the type-species and its near allies.

Sclateria nævia diaphora Todd.

Sclateria nævia diaphora Todd, Proc. Biol. Soc. Washington, XXVI, 1913, 172 (Rio Mocho, Rio Caura, Venezuela).

Sclateria nævia nævia (Gmelin).

Sitta nævia Gmelin, Syst. Nat., I, i, 1788, 442 (Surinam, ex Edwards).

Sclateria nævia toddi Hellmayr.

Sclateria nævia toddi Hellmayr, Field Mus. Zool. Ser., XIII, iii, 1924, 253 (Santarem, Rio Tapajóz, Brazil).

Sclateria argentata (DesMurs).

Herpsilochmus argentatus DesMurs in Castelnau, Expéd. Amér. Sud, Zool., I, Oiseaux, 1856, 53, pl. 17, fig. 2 (Nauta, Peru).

The yellow feet and nearly white (unstriped) under parts of this form are in my opinion good specific characters as compared with *S. nævia*, in spite of the somewhat intermediate character of the Tapajóz race.

Schistocichla, genus novum.

Similar to *Sclateria* Oberholser, but bill proportionately shorter and slenderer (shorter than the head). Similar to *Myrmeciza* Gray, but loral and frontal regions fully feathered; bill stouter, with the commissure straighter; and the tail relatively longer, usually extending beyond the outstretched feet. Type, *Percnostola leucostigma* von Pelzeln.

The species belonging to this group have been shifted about from one genus to another by different authors. The latest authority (Dr. Hellmayr) keeps them in *Sclateria*, but with much misgiving, and suggests that the latter group be restricted to *S. nævia* and its allies, or else merged with *Myrmeciza*. The latter course would make its satisfactory diagnosis quite impossible, so that, after going over the whole ground, I have reached the conclusion that the facts would be best expressed by setting off "*S.*" *leucostigma* and its allies from both these genera, and still further restricting *Myrmeciza*.

Schistocichla subplumbea subplumbea (Sclater and Salvin).

Dysithamnus subplumbeus Sclater and Salvin, Proc. Zool. Soc. London, 1880, 158 (Sarayacu, Ecuador).

Schistocichla subplumbea, subsp.

This is the *Sclateria schistacea* of authors, but not of Sclater, 1858, whose type has been unique until recently, and belongs to a species entirely distinct from that with which it has been misidentified, as will be shown beyond. The present form is therefore without a name, but is conspecific with *S. subplumbea*, from which it differs in the generally darker coloration of the male, and the darker brown upper parts and rather lighter under parts of the female.

As we understand that this form is shortly to be formally described and named by Mr. John T. Zimmer from material in the Field Museum, we refrain from christening it here.

Schistocichla leucostigma (von Pelzeln).

Percnostola leucostigma von Pelzeln, Orn. Brasiliens, ii, 1868, 86, 160 ("Barra do Rio Negro" = Manáos, Brazil).

This form is closely related to *S. subplumbea*, but is much lighter in color in both sexes, and the feet are pale, not dark, as in that form. For the present it may remain specifically distinct, its separated range lending support to this view.

Schistocichla infuscata, sp. nov.

Male: above dark neutral gray, the pileum, wings, and tail more blackish; wing-coverts with small white terminal spots; sides of head deep neutral gray, passing into light neutral gray on the under parts, the flanks and crissum dark olive gray. Wing, 63; tail, 48; bill, 19; tarsus, 25.

Female: above, including outer aspect of wings, deep, rich brown (between Mars brown and Prout's brown), the remiges mummy brown towards their tips; wing-coverts with ochraceous tawny terminal spots; tail dull black; pileum dark brownish olive, with indistinct blackish edgings to the feathers; sides of head similar but duller; under parts between ochraceous orange and ochraceous tawny, paler on the throat, darker and more brownish on the flanks and crissum. Wing, 66; tail, 50; bill, 19; tarsus, 25 (fresher plumage).

The male of this form is much paler than that of *S. subplumbea;* the bill (below) and feet are light-colored instead of dark. The female is also much paler below; the bill and feet differ as in the male; and the upper parts are almost the same, except the pileum and sides of the head, which are brownish olive, not slaty gray. The species is based on a single pair of birds from Tonantins, on the upper Amazon.

Type, No. 96,887, Collection Carnegie Museum, adult female; Tonantins, Rio Solimoës, Brazil, June 21, 1923; Samuel M. Klages.

Schistocichla humaythæ humaythæ (Hellmayr).

Sclateria schistacea humaythæ Hellmayr, Bull. Brit. Orn. Club, XIX, 1907, 51 (Humaytha, Rio Madeira, Brazil).

This form was described from the upper Rio Madeira, and was supposed to be confined to that region. No form of this group has ever been recorded from the Rio Tapajóz, so that our series from that river (Santarem, Villa Braga, and Apacy), consisting of two adult and one immature males and three adult females, are of double interest. They fit the description of *humaythæ* exactly, and show that its range is more extensive than was supposed. The feet in both sexes are decidedly paler ("flesh pink" in life) than in *S. subplumbea.* The latter is not only much darker colored in both sexes, but the female has the pileum and the sides of the head slaty.

Schistocichla humaythæ major, subsp. nov.

Similar to *S. humaythæ humaythæ,* but larger, and tail relatively shorter. Male purer gray above and below; female duller brown above, and the sides of the head dull brownish olive, like the pileum, instead of rufescent like the under parts.

Forty-one specimens of this race are in the collection, from the following localities in Brazil: Hyutanahan and Arimã, Rio Purús; São Paulo de Olivença, Manacapurú, and Caviana, Rio Solimoës. No form of this group has been known thus far in the region of the Rio Purús, or on the middle Amazon above Manáos, but the present series fill the gap, and show a presumably continuous range between the forms inhabiting French Guiana

and Peru respectively. It is curious to find the same form on both sides of the river at Manacapurú, while farther up, at São Paulo de Olivença and Tonantins, two forms occur, confined to either bank. Manáos is the type-locality of *S. leucostigma*, yet at Manacapurú it is the present form that occurs. Probably the Rio Negro is the dividing line between their respective ranges.

Type, No. 96,274, Collection Carnegie Museum, adult female; São Paulo de Olivença, Rio Solimoës, Brazil, April 5, 1923; Samuel M. Klages. (Wing, 70; tail, 48; bill, 18.5; tarsus, 26.5.)

Schistocichla saturata (Salvin).

Heterocnemis saturata Salvin, Ibis, 1885, 427 (Roraima, British Guiana). No specimen of this form has been examined.

Schistocichla schistacea (Sclater).

Hypocnemis schistacea Sclater, Proc. Zool. Soc. London, 1858, 252 (Rio Javarri, Peru).

Male: above and below (including wings and tail externally) almost uniform slate-color, duller on the abdomen and crissum; wing-coverts with small white terminal spots. Wing, 62–66; tail, 47–50; bill, 17–18; tarsus, 23–25.

Female: above rich brown (between Brussels brown and raw umber), duller (pale mummy brown) on the rump, more rufescent on the pileum, which shows paler shaft-stripes and obscure darker margins to the feathers; wings externally brown like the back, the wing-coverts with rufescent buff terminal spots; tail dusky slate-color; sides of head (including superciliaries) and under parts in general rich ochraceous rufous (between Mars yellow and Sudan brown), becoming duller and browner (sepia) on the flanks, and dusky slate-color on the crissum. Wing, 60–65; tail, 48–50; bill, 16.5–18; tarsus, 24–25.

Of this species we have a series of forty-nine specimens from São Paulo de Olivença and Tonantins, on the Rio Solimoës, Brazil. Some of these were sent to Dr. Hellmayr, and he reports that they are the long-lost true "*Hypocnemis*" *schistacea* of Sclater, founded originally on a single male sent by Bates from the Rio Javarri, which flows into the Rio Solimoës a little west of São Paulo de Olivença. The species identified as *schistacea* by later authors is an entirely different bird, subspecifically related to *S. subplumbea*, and is described above. In order to clear up the confusion surrounding the present form a full description is here given.

For the present I refer this species to *Schistocichla*, but it is aberrant, having a weaker bill and shorter tail than the typical forms of that group. The feet, too, are weaker, and the tarsi rougher. In coloration, however, it suggests *S. caurensis*, and may provisionally be left near that form.

Schistocichla caurensis (Hellmayr).

Sclateria schistacea caurensis Hellmayr, Bull. Brit. Orn. Club, XIX, 1906, 9 (Caura River, Venezuela).

In its rather longer tail and rougher tarsi this species approaches *Myrmelastes*, but otherwise is best referred to *Schistocichla*.

MYRMELASTES Sclater.[1]

Myrmelastes Sclater, Proc. Zool. Soc. London, 1858, 274 (type by subsequent designation [Sclater, 1890], *Myrmelastes plumbeus* Sclater = *Thamnophilus hyperythrus* Sclater).

This group differs from *Myrmeciza* in its stouter, heavier bill, and more rounded nostrils. The tail is relatively longer, the outstretched feet not reaching beyond it. But the best marked generic character is the extensive naked postorbital area, which sets off this group from its affines, although in *Myrmeciza maculifer* there is an approach towards it. On the other hand the genus is related to *Gymnocichla*, in which the denudation is still more extensive.

Myrmelastes hyperythrus (Sclater).

Thamnophilus hyperythrus Sclater, Edinburgh New Philos. Journ., (n. s.) I, 1855, 235 (Chamicuros, Peru).

Myrmelastes gœldii Snethlage.

Myrmelastes goeldii Snethlage, Journ. f. Orn., LVI, 1908, 17 (Bom Lugar and Ponto Alegre, Rio Purús, Brazil).

Not seen by the writer, but since it is said to agree perfectly in structure and proportion with *M. melanoceps*, it is doubtless correctly placed here.

Myrmelastes melanoceps (Spix).

Thamnophilus melanoceps Spix, Avium . . . Brasiliam, II, 1825, 28, pl. 39, fig. 1 ("Pará" [error] = Rio Içа, Brazil [fide Hellmayr]).

Myrmelastes fortis fortis (Sclater and Salvin).

Percnostola fortis Sclater and Salvin, Proc. Zool. Soc. London, 1867, 980, pl. 45 (Pebas and Chyavetas, Peru).

Three females from eastern Ecuador (lower Rio Suno) in the collection of the American Museum of Natural History agree closely with our series from the Rio Purús, São Paulo de Olivença, and Caviana, Brazil (forty-nine specimens).

[1] *Myrmelastes cryptoleucus* Ménégaux and Hellmayr, Bull. Soc. Philom. Paris, (9), VIII, 1906, 30 (Pebas, Peru) = *Thamnophilus cryptoleucus*. As shown by the large series in the collection of the Carnegie Museum (from Sao Paulo de Olivença, Panelas Island, and Marrecao Island, Rio Solimoës, Brazil), the type of this species, supposed to have been a male, must have been a female instead. The male may be thus described: black, with a slight gloss, wanting on the flanks, which are duller and more sooty; back with a large concealed white interscapular patch, and the scapulars edged with white externally; all the wing-coverts conspicuously edged with white toward their tips, and the innermost lesser coverts largely of this color; under wing-coverts pure white, and inner margins of remiges white basally, increasing in extent on the innermost; "iris seal, eyelids blackish; bill black; feet plumbeous." There is a certain resemblance in coloration between this species and *Myrmelastes melanoceps*, but it is clearly a *Thamnophilus*, and not a *Myrmelastes*. Dr. Hellmayr, to whom some of our series were submitted for examination, fully agrees with this allocation.

Myrmelastes fortis incanescens, subsp. nov.

Similar to *Myrmelastes fortis fortis,* and adult male not certainly distinguishable. Adult female more grayish above; flanks duller brown; and bill dark-colored beneath.

This form is based on a series of nine specimens from Tonantins, on the north bank of the Rio Solimoës in western Brazil. In the five females of this series the upper back is largely dark gray, in strong contrast to the pileum, while in true *fortis* the rufescent color predominates. In our female specimens of this latter form the bill below is pale or yellowish.

Type, No. 97,601, Collection Carnegie Museum, adult female; Tonantins, Rio Solimoës, Brazil, August 2, 1923; Samuel M. Klages.

Myrmelastes immaculatus immaculatus (Lafresnaye).

Thamnophilus immaculatus Lafresnaye, Rev. Zool., VIII, 1845, 340 ("Bogotá," Colombia).

Myrmelastes immaculatus berlepschi (Ridgway).

Myrmeciza berlepschi Ridgway, Proc. Biol. Soc. Washington, XXII, 1909, 74 (Chimbo, Ecuador).

Myrmelastes immaculatus zeledoni (Ridgway).

Myrmeciza zeledoni Ridgway, Proc. Biol. Soc. Washington, XXII, 1909, 74 (Guayabo, Costa Rica).

Myrmelastes lophotes (Hellmayr and von Seilern).

Percnostola lophotes Hellmayr and von Seilern, Verh. Orn. Ges. Bayern, XII, 1914, 90 (Rio San Gaban, Carabaya, Peru).

Not examined in the present connection.

MYRMECIZA Gray.[1]

Myrmeciza Gray, List Genera Birds, ed. 2, 1841, 34 (type, *Drymophila longipes* Swainson).

In *Myrmeciza* the bill is weaker than in *Myrmelastes;* the nostrils are more elongated; the region back of the eye is normally feathered (although in one group of species the frontal region is less densely feathered than usual); and the tail is relatively shorter, falling short of the outstretched feet.

Myrmeciza longipes longipes (Swainson).

Drymophila longipes Swainson, Zool. Journ., II, 1825, 152 ("Brazil" [error] = Trinidad [fide Hellmayr]).

Myrmeciza longipes panamensis Ridgway.

Myrmeciza boucardi panamensis Ridgway, Proc. Biol. Soc. Washington, XXI, 1908, 144 (Panama Railroad).

[1] *Myrmeciza dubia* Snethlage (Journ. f. Orn., LXXIII, 1925, 273) I am unable to place from the description.

Myrmeciza longipes boucardi von Berlepsch.

Myrmeciza boucardi von Berlepsch, Ibis, 1888, 129 ("Bogotá," Colombia).

Myrmeciza longipes griseipectus von Berlepsch and Hartert.

Myrmeciza swainsoni griseipectus von Berlepsch and Hartert, Nov. Zool., IX, 1902, 76 (Caicara, Venezuela).

Myrmeciza læmosticta læmosticta Salvin.

Myrmeciza læmosticta Salvin, Proc. Zool. Soc. London, "1864," 1865, 582 (Tucurriqui, Costa Rica).

Myrmeciza læmosticta palliata Todd.

Myrmeciza læmosticta palliata Todd, Proc. Biol. Soc. Washington, XXX, 1917, 129 (La Palmita, Santander, Colombia).

This form was based on two specimens from the type-locality and one other from El Tambor, Colombia. A single example from Azulita, Venezuela, extends its range considerably.

Myrmeciza læmosticta nigricauda Salvin and Godman.

Myrmeciza nigricauda Salvin and Godman, Biol. Centr.-Am., Aves, II, 1892, 230 (Intac, Ecuador).

Myrmeciza exsul occidentalis Cherrie.

Myrmeciza exsul occidentalis Cherrie, Auk, VIII, 1891, 191 (Pozo Azul, Costa Rica).

Myrmeciza exsul exsul Sclater.

Myrmeciza exsul Sclater, Proc. Zool. Soc. London, XXVI, "1858," 1859, 540 (Panama).

Myrmeciza maculifer maculifer (Hellmayr).

Myrmelastes exsul maculifer Hellmayr, Nov. Zool., XIII, 1906, 340 (Paramba, Ecuador).

Myrmeciza maculifer cassini (Ridgway).

Myrmelastes cassini Ridgway, Proc. Biol. Soc. Washington, XXI, 1908, 194 (Turbo, Colombia).

As shown by Dr. Chapman and confirmed by the writer, specimens of this species from western Colombia are variously intermediate between *maculifer* and *cassini*. The type and topotype of *cassini*, which have been examined in this connection, turn out to be intermediate examples, but rather nearer the northern form, so that the name may be retained.

Myrmeciza spodiogastris[1] (von Berlepsch and Stolzmann).

Myrmeciza spodiogastra von Berlepsch and Stolzmann, Ibis, 1894, 397 (Borgoña, Chanchamayo Valley, Peru).

[1]Dr. Oberholser contends that compounds of *-gaster* should be inflected the same as those of *-venter*, and with this I am inclined to agree, provided that the word is used as an adjective and not as a substantive.

A series of specimens from São Paulo de Olivença, Rio Solimoës, Brazil, fit the original description very well, but require comparison with topotypical material.

Myrmeciza hemimelæna hemimelæna Sclater.

Myrmeciza hemimelæna Sclater, Proc. Zool. Soc. London, 1858, 48 (Bolivia).

Mr. Ridgway (Bulletin U. S. National Museum, No. 50, V, 1911, 15) was uncertain as to the generic position of this species, but thought it might be a *Myrmoderus*. Dr. Hellmayr, indeed, places it with that group, but I can not follow him in so doing. It seems to me that it agrees much better (even in style of coloration) with *Myrmeciza*, and ought to be placed in this group instead. Only in the denser feathering of the lores and frontal region does it approach *Myrmoderus*, all the other characters being different. These remarks apply also to *M. spodiogastris*.

Myrmeciza hemimelæna pallens von Berlepsch and Hellmayr.

Myrmeciza hemimelæna pallens von Berlepsch and Hellmayr, Journ. f. Orn., LIII, 1905, 32 (Villa Bella de Matto Grosso, Brazil).

Myrmeciza ruficauda (Wied).

Myiothera ruficauda Wied, Beitr. Naturg. Brasilien, III, ii, 1831, 1060 ("Brazil" = Rio Doce, Prov. Espirito Santo, fide Hellmayr).

After examining this species I would refer it without hesitation to *Myrmeciza* instead of to *Myrmoderus*. Its short tail, scantily feathered forehead, and style of coloration all bring it into the former group.

Myrmeciza pelzelni Sclater.

Myrmeciza pelzelni Sclater, Cat. Birds Brit. Mus., XV, 1890, 283 (Marabitanas, Rio Negro, Brazil).

Not examined in this connection, but apparently belonging here.

Myrmoderus Ridgway.

Myrmoderus Ridgway, Proc. Biol. Soc. Washington, XXII, 1909, 70 (type, *Myiothera loricata* Lichtenstein).

This group, as set up by Mr. Ridgway and later treated by Dr. Hellmayr, is certainly heterogeneous, and requires subdivision, for as it stands it is incapable of proper definition. I propose, therefore, to restrict it to the type-species, *Myiothera loricata* Lichtenstein, and its near ally, *Myrmeciza squamosa* von Pelzeln. These agree in shape of the bill, feathering on the head, style of coloration, and in having the tail longer than the wing, with rather narrow rectrices, and much rounded or graduated. The feet are rather weak, and the tarsi slender and pale-colored.

Myrmoderus loricatus (Lichtenstein).

Myiothera loricata Lichtenstein, Verz. Dubl. Berliner Mus., 1823, 44 (Bahia, Brazil).

Myrmoderus squamosus von Pelzeln.

Myrmeciza squamosa von Pelzeln, Orn. Brasilien, ii, 1868, 87, 162 (Ypanema Mattodentro, São Paulo, Brazil).

Myrmedestes, genus novum.

Similar to *Myrmoderus* Ridgway, but tail shorter than the wing, the rectrices relatively wider; and the sides of the head largely naked. Type, *Turdus ferrugineus* Müller.

In the general shape of the bill the type of this genus resembles *Myrmoderus,* but there the resemblance ends, and it seems strange that Mr. Ridgway should have assigned it to that group. The loral, suborbital, and postocular regions are extensively bare—more so than in *Gymnopithys* and *Rhegmatorhina*—and this character alone would suffice to keep the species in question out of *Myrmoderus,* while the style of coloration is different, and the black feet also suggest a distinction.

Myrmedestes ferrugineus ferrugineus (Müller).

Turdus ferrugineus Müller, Natursyst., Suppl., 1776, 141, ex Daubenton, Pl. Enl., 560, fig. 2 (Cayenne).

Myrmedestes ferrugineus elutus, subsp. nov.

Similar to *Myrmedestes ferrugineus ferrugineus* from north of the Amazon, but flanks and crissum paler in both sexes, and female with more white below the black pectoral band, on the upper abdomen.

Nineteen specimens from Villa Braga and Itaituba, Rio Tapajóz, Brazil, differ from a good series from French Guiana and Obidos as above pointed out, and the difference is fully enough to justify giving the southern bird a new name, although it is bridged over by individual variation in both sexes. In typical *ferrugineus* the flanks and crissum are usually Brussels brown, almost uniform, while in the new form the flanks are nearer buckthorn brown, deepening on the crissum into antique brown. As seen in series the difference is obvious, and would of itself justify subspecific separation of the trans-Amazonian birds, aside from the much whiter under parts of the female of the latter, which is another good character.

Type, No. 76,019, Collection Carnegie Museum, adult male; Villa Braga, Rio Tapajóz, Brazil, December 27, 1919; Samuel M. Klages.

Myrmophylax, genus novum.[1]

Similar to *Myrmoderus* Ridgway in the shape of the bill, but tail approximately equal to the wings, composed of broad black feathers, widening

[1] *Myrmoderus griseiceps* Chapman, Am. Mus. Novit., No. 86, 1923, 6 (Palambla, Piura, Peru)=*Neorhopias griseiceps.* Dr. Chapman described this very distinct species as a *Myrmoderus,* probably because of its resemblance in color to "*Myrmoderus*" *atrothorax.* To my mind, however, this resemblance is purely superficial, and its weak feet, graduated and (in the male) white-tipped tail, shape of bill, etc., indicate that it belongs in *Neorhopias* instead. Even the general style of coloration is not seriously out of accord with the other members of this generic group.

towards their tips; and style of coloration entirely different. Type, *Formicarius atrothorax* Boddaert.

The reason for associating this group of species with *Myrmoderus* is not apparent. In fact, they rather suggest *Neorhopias* Hellmayr, except for their more rounded wings and much stronger feet.

Myrmophylax atrothorax atrothorax (Boddaert).

Formicarius attothorax (err. typ.) Boddaert, Tabl. Pl. Enl., 1783, 44, ex Daubenton, Pl. Enl., 701, fig. 2 (Cayenne).

Myrmophylax atrothorax melanura (Ménétriès).

Formicivora melanura Ménétriès, Mem. Ac. Sci. St. Petersburg, (6) III, ii, 1835, 508, pl. 8, figs. 1, 2 (Cuyabá, Matto Grosso, Brazil, fide Chrostowski).

Myrmophylax atrothorax maynana (Taczanowski).

Myrmeciza maynana Taczanowski, Proc. Zool. Soc. London, 1882, 32 (Yurimaguas, Peru).

Not examined in this connection.

Myrmophylax stictothorax, sp. nov.

Male: above dull medal bronze (with a concealed white interscapular blotch), more grayish on the pileum, more dusky on the rump, the wings externally more brownish (sepia), the lesser and middle coverts more blackish; all the upper coverts with small triangular terminal white spots; tail and its upper and under coverts black; sides of head and neck, and the under parts from the breast down, deep neutral gray, the flanks with a slight wash of brownish olive; throat and breast black medially, the latter with some shaft-spots or stripes of white; under wing-coverts dull grayish white. Wing, 58; tail, 56; bill, 14.5; tarsus, 23.5.

Female: above bright Dresden brown (with a concealed white interscapular blotch), the pileum duller (more olivaceous), the wings externally more brownish (Prout's brown), their coverts with whitish or buffy terminal spots (larger than in the male); tail black; forehead and sides of head dull gray; throat white; breast and sides of neck rich ochraceous buff, the sides of the abdomen washed with the same color; abdomen medially white; flanks washed with Saccardo's umber; tibiæ and crissum deep neutral gray; under wing-coverts buffy white. Wing, 57; tail, 55; bill, 13.5; tarsus, 24.5.

This species is allied to *M. atrothorax atrothorax*, from which it differs, in the male sex, by its white-spotted breast, and in the female, by its lighter-colored upper parts and more extensively white under parts. No form of this group has been known heretofore from south of the Amazon in the east, so that it is not surprising to find a representative here that is new. Unfortunately this species is represented by only a single pair of birds, which, however, can not be matched with any known form.

Type, No. 77,834, Collection Carnegie Museum, adult male; Apacy, Rio Tapajóz, Brazil, April 17, 1920; Samuel M. Klages.

Chamæza nobilis fulvipectus, subsp. nov.

Similar to *Chamæza nobilis nobilis* Gould of eastern Ecuador and Peru, but breast rich yellow ocher, with the usual black stripes.

This form is based on a single individual, which I can not believe is immature, even although the buffy crissum might so suggest; its characters seem rather the culmination of the tendency towards fulvescence of the breast which is shown by specimens from the Rio Purús and Rio Solimoës. Moreover, this is an entirely new region for *nobilis*, and it is not surprising to find it represented here by a different race.

Type, No. 75,049, Collection Carnegie Museum, adult male; Colonia do Mojuy, Santarem, Brazil, November 12, 1919; Samuel M. Klages.

Gymnopithys leucaspis lateralis, subsp. nov.

Similar to *Gymnopithys leucaspis leucaspis* (Sclater), but upper parts less rufescent; dusky stripe on the sides of the body more extended posteriorly, to cover most of the flanks; the lower flanks more brownish, less rufescent; crissum more extensively white, with little or no brownish wash.

This is a well-marked form, easily recognizable by its duller, more brownish coloration and dusky flanks, and usually whitish crissum, continuous with the white of the abdomen. The species has not been traced farther east heretofore than the upper Rio Negro, and so it is not surprising to find that it has undergone modification on reaching the farthest outskirts of its range. Its characters are shown equally well in both sexes. Eleven specimens have been examined, all from the type-locality.

Type, No. 98,050, Collection Carnegie Museum, adult male; Manacapurú, Rio Solimoës, Brazil, September 21, 1923; Samuel M. Klages.

Hylophylax nævia obscura, subsp. nov.

Similar to *Hylophylax nævia consobrina* Todd, but the upper parts darker in tone, between brownish olive and sepia (instead of Dresden brown); gray of sides of head darker.

Four males and two females from Tonantins, on the north bank of the Rio Solimoës, are so markedly different from a series from Manacapurú (*consobrina*) and another from French Guiana (*nævia*) that I have no alternative but to give them a name. Very possibly the dark-headed birds from Marabitanas, Rio Negro, to which Dr. Hellmayr refers (Field Museum Zoological Series, XIII, iii, 1924, 309, note), may belong here also. I do not consider them, however, as intergrades in the direction of *theresæ*, which occurs at São Paulo de Olivença, farther up the Rio Solimoës. There is no evidence of intergradation forthcoming.

Type, No. 96,888, Collection Carnegie Museum, adult male; Tonantins, Rio Solimoës, Brazil, June 21, 1923; Samuel M. Klages.

Hylophylax gutturalis, sp. nov.

Adult male: above dark neutral gray, the back with a small concealed white interscapular blotch, the lower back, rump, and wing-coverts with numerous feathers black subterminally and tipped with white, producing a

squamate effect; remiges dusky black, the secondaries with white tips; tail black, with small white terminal spots, and crossed near its middle by a row of white spots, confined to the inner webs except on the outermost pair of feathers, where they occur on both webs; upper tail-coverts black, with white terminal spots; throat black; sides of head and rest of lower parts deep neutral gray, including under wing-coverts; under tail-coverts with whitish tips, and paler in tone; "iris reddish brown or chestnut; bill black; feet bluish gray."

Adult female: above brown (dull Brussels brown), the back with a small white interscapular blotch, the pileum more rufescent (argus brown), passing into amber brown on the forehead and sides of the head; lower back with black-and-white-tipped feathers as in the male; wing-coverts brown, tipped with white or buffy; upper tail-coverts brown, with a subterminal black area and white tips; tail-feathers black, with white median and terminal spots as in the male; wings deep brown, with paler brown outer edgings, and whitish terminal spots on the secondaries; throat bright ochraceous buff, darkening on the breast into tawny buff (between ochraceous tawny and buckthorn brown) and into dull tawny olive or buffy brown on the flanks; under tail-coverts dull cinnamon buff or clay-color, with sometimes indicated paler tips; under wing-coverts like the breast.

The male of this interesting new species is so close to that of *H. nigrigula* (Snethlage) (a large series examined) that I can find no constant characters whereby to distinguish it, although it might possibly be a little darker. The female, on the contrary, is entirely different from the same sex of *nigrigula*, and requires comparison only with that of *lepidonota*, than which, however, it is much duller below, especially posteriorly, there being a gradual fading out of the rufescent color from the throat to the crissum, whereas in *lepidonota* the under parts are nearly uniform.

This adds another form to the group typified by *H. pœcilonota*, in which the various species seem to be characterized by different permutations and combinations of sex- and color-characters. We have thirty-three specimens, all from the type-locality.

Type, No. 95,647, Collection Carnegie Museum, adult female; São Paulo de Olivença, Rio Solimoës, Brazil, March 3, 1923; Samuel M. Klages.

Phlegopsis erythroptera ustulata, subsp. nov.

Similar to *Phlegopsis erythroptera erythroptera* (Gould) from north of the Amazon, but male distinguishable by having the upper tail-coverts almost or quite pure black, with little or no maroon brown color; female paler and duller in general coloration, more brownish, less rufescent, the light markings on the wings decidedly buffy instead of white.

The above characters hold good in a series of ten males and five females from south of the Amazon, as compared with nine males and five females from north of that river, assumed to represent typical *erythroptera* (cf. Hellmayr, Field Museum Zoological Series, XIII, iii, 1924, 318–9). As seen in series, this is a good race. The buffy color of the wing-markings

is not due to immaturity, since an obviously immature female (No. 93,708) has these markings rich rusty-buff, and much larger.

Type, No. 93,707, Collection Carnegie Museum, adult female; Arimã, Rio Purús, Brazil, October 13, 1922; Samuel M. Klages.

Grallaricula nana occidentalis, subsp. nov.

Similar to *Grallaricula nana nana* (Lafresnaye), but distinguished by its paler coloration below.

Compared with Lafresnaye's type of *nana* (No. 76,739, Collection Museum Comparative Zoology) our three specimens from the Western Andes are obviously paler, ochraceous rather than ferrugineous below, and seem to represent a separable race. It is of course not surprising to find that the bird of the Western Andes is different. This appears to be the first record from that range.

Type, No. 70,434, Collection Carnegie Museum, adult male; Sancudo, Caldas, Colombia, September 2, 1918; M. A. Carriker, Jr.

Myrmothera campanisoma subcanescens, subsp. nov.

Similar to *Myrmothera campanisoma campanisoma* (Hermann) of French Guiana and northern Brazil, but larger; upper parts more brownish (deep Dresden brown), less rufescent; and stripes on under parts tending more to grayish; under wing-coverts paler, more buffy, less ochraceous. Wing (type), 86; tail, 40; bill, 20; tarsus, 44.

With a satisfactory series of *Myrmothera campanisoma* from various parts of its range it is obvious that three races are represented: (1) the typical one from French Guiana, a strongly rufescent form, small by comparison; (2) *minor*, from the upper Amazon and Rio Purús, much duller and more olivaceous; and (3) a paler race, more russet brown above and with the breast-streaks grayer, which is found on both banks of the Rio Tapajóz, and probably ranges over to the Rio Madeira. This new form agrees with *minor* in larger size as compared with *campanisoma*, but above is not so dull or so olivaceous, inclining more to brownish; the under wing-coverts are also paler as a rule. In spite of some individual variation in the direction of the other forms it is a perfectly good race, as seen in a series of twenty-nine skins (compared with thirty-eight of *campanisoma* and twenty-eight of *minor*).

Type, No. 74,906, Collection Carnegie Museum, adult male; Colonia do Mojuy, Santarem, Brazil, November 6, 1919; Samuel M. Klages.

Grallaria varia distincta, subsp. nov.

Dr. Hellmayr has already called attention to the peculiarities of this race, as represented by specimens from the Rio Madeira. It is similar to *varia*, but the buff shaft-streaks of the upper parts are more distinct; the tail is brighter colored, nearer amber brown than argus brown; the markings of the under parts are more brownish, less rufescent, and tend more to break up into spots or bars posteriorly; and the under wing- and

tail-coverts average brighter, more ochraceous. Five males and one female compared with five males and seven females of true *varia* support this diagnosis. We have, then, three races of this species in the Amazon Valley: *varia* on the north, from east of the Rio Negro to French Guiana; *cinereiceps* from the Rio Negro westward; and the present race on the south side of the Amazon, from the Rio Tapajóz to the Rio Madeira at least.

Type, No. 75,444, Collection Carnegie Museum, adult male; Villa Braga, Rio Tapajóz, Brazil, December 6, 1919; Samuel M. Klages.